FEMA

Diamondhead Home: A Mitigation Blueprint

Hancock County, Mississippi

Diamondhead, MS – Raymond J. Sheehy felt confident that mitigation measures would help keep his home safe when Hurricane Katrina (2005) hammered the Gulf Coast with 135-mile per hour (mph) winds. A retiree from the U.S. Air Force, the Federal Emergency Management Agency (FEMA), and the Hancock County Civil Defense Department, Mr. Sheehy knows firsthand the importance of enacting measures to prepare and protect lives and property before disaster strikes. “I track every storm from force of habit,” he said.

Mr. Sheehy and his wife Pat decided to build a new house and settle into retirement on the Gulf Coast. Aware that the area is highly incorporated mitigation strategies into the construction of their home. This was crucial because their home would be only seven miles from the Gulf.

While deployed by FEMA to American Samoa in the South Pacific, Mr. Sheehy observed that only one of the 750 homes built to mitigation specifications was damaged when a 1991 storm hit the islands with 225 mph winds. Construction of these homes was based on FEMA’s publication, “Home Builder’s Guide to Coastal Construction.“ “So I decided right then I wanted one of those books,” Mr. Sheehy said. Construction of the Sheehys’ mitigated home was completed in the spring of 1995.

There are several risk mitigation strategies incorporated into the couple’s home. The house is firmly anchored to the slab-on-grade foundation, and has reinforced laminated beams along the ceiling to enhance its structural integrity and to increase the roof’s anchoring capability. The roof was built with ¾-inch plywood attached to trusses placed 16-inches apart, rather than the usual 20-inches. Few windows were placed on the southeast side of the house, the direction from which powerful hurricane winds usually blow. Manual wooden shutters were installed on the other windows of the house. There is a pantry-like reinforced safe room in the middle of the house, stocked with emergency supplies. The attached patio area is partially enclosed to help reduce the impact of driving winds. Mr. Sheehy conducts weekly tests of his generator to ensure that it is operating properly. He keeps an ample supply of gasoline and diesel fuel stored outside his garage area.

The couple decided to stay in their mitigated home during the storm. “The wind was blowing, trees were shaking and this house never moved. It never moved an inch,” noted Mr. Sheehy.

While Hurricane Katrina wiped out all power and water to area communities for 21 days, the Sheehys’ generator was up and running and their home was powered for the duration. Once the storm subsided, the couple did a thorough damage assessment of their property and found that their home remained mostly untouched. In contrast, other low-lying communities surrounding the Sheehys were demolished by Hurricane Katrina’s fierce winds and surging waters. The Sheehys’ investment in mitigation planning and construction has created a safe fortress from which they can face future hurricanes.

Quick Facts

Sector:
Private

Cost:
Amount Not Available

Primary Activity/Project:
Building Codes

Primary Funding:
Property Owner, Residential